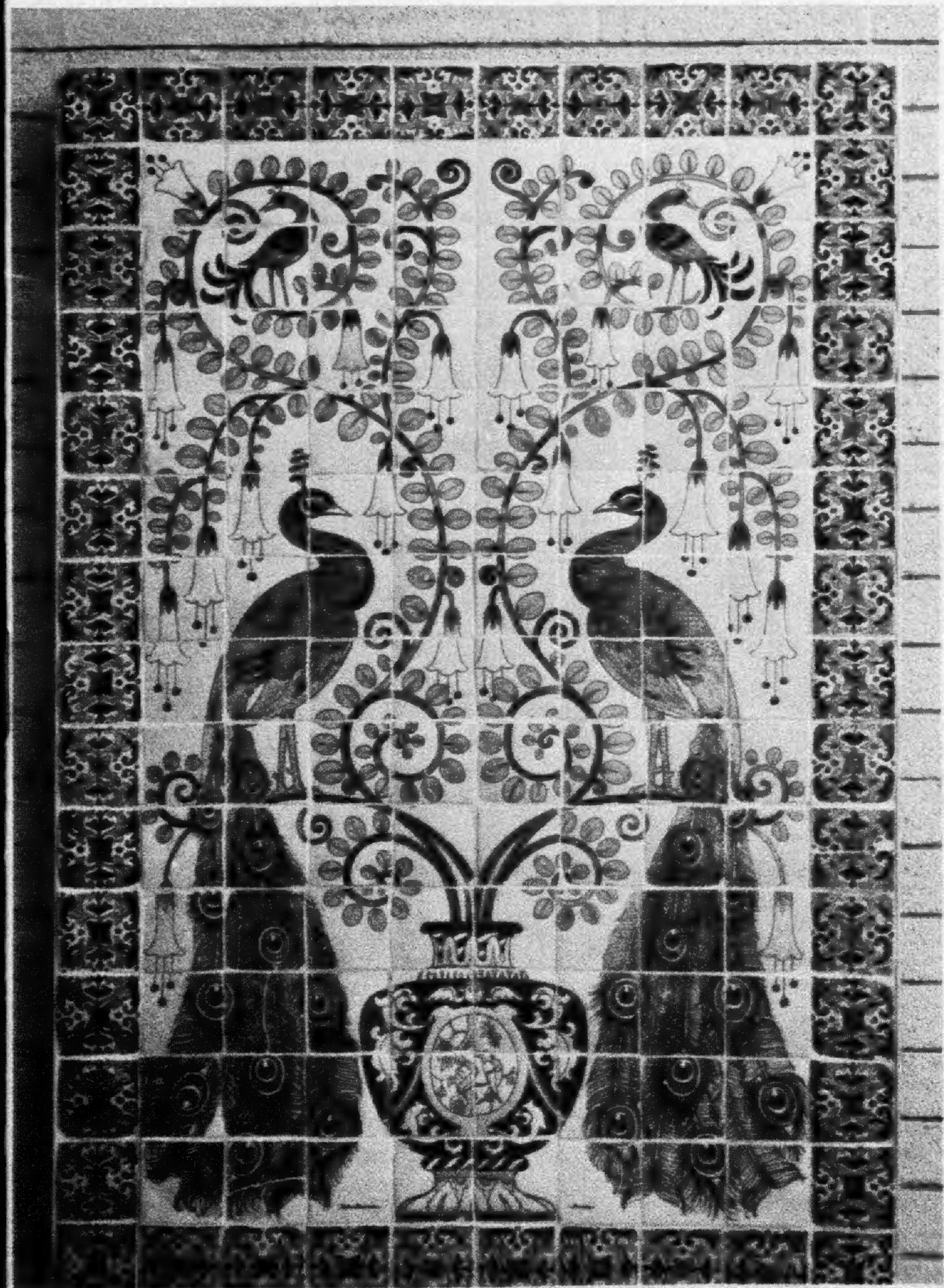


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*Annual
Report
1958 - 59*



*Los Angeles County
Department of Arboreta
and Botanic Gardens*

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ABOUT THE COVER —

Two interesting features of the entranceway of the new Administration Building Wing. Upper right: Display of exotic Bromeliads and epiphytic plants growing on a small Oak tree. Lower left: Wall display of one of several unique & beautiful Mexican picture tiles presented by The California Arboretum Foundation, Inc. as a gift from Dr. and Mrs. R. S. Harrison. For details on Wing see page 3; for tiles, page 13.



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COUNTY OF LOS ANGELES
DEPARTMENT OF ARBORETA AND BOTANIC GARDENS

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April 7, 1960

Board of Supervisors
County of Los Angeles
501 Hall of Records
Los Angeles 12, Calif.

Gentlemen:

The expansion of this Department to double its effectiveness in serving the citizens of Los Angeles County was achieved in the fiscal year 1958-59 by the addition of Descanso Gardens. With no increase in the budget for Descanso Gardens, public education was greatly extended and classes of a diverse array for both children and adults were successfully undertaken, duplicating the work pioneered at the Arboretum. New emphasis was given to research, and a fresh approach made to the tremendous developmental potentialities contained within Descanso Gardens.

At the same time, further progress at the Arboretum toward the attainment of its objectives was aided by many generous private gifts and by the sizeable support of its research activities by national grants.

The result of this program is summarized in the following statement by the Los Angeles County Grand Jury in their 1959 Final Report:

"Members of the Audit and County Offices Committee studied and toured the Arboretum, Descanso Gardens, and the little known Lux Arboretum and found them to be of untold value to the people of Los Angeles County. It is felt the education and scientific research programs should receive as much support as possible, especially the research program concerning drought and fire resistant plants for use in the foothills and along the highways.

It is noted that public interest is growing and attendance in 1958-59 has very nearly doubled over that of 1957-58, and that was double the previous year."

This report, highlighting some of the major activities responsible for this growing interest in "plant-appreciation" in the broadest sense, is herewith respectfully transmitted.

Sincerely yours,

William S. Stewart
Director

WSS/jd

ANNUAL REPORT OF THE DEPARTMENT OF ARBORETA AND BOTANIC GARDENS
COUNTY OF LOS ANGELES
1958 - 59

PART I. Activities of the Department

Significant highlights of the year have been the addition of Descanso Gardens, the increased attendance, the educational program, the research projects, and construction of the administration building wing which houses the library, herbarium, and lecture hall.

1. On July 1, 1958, the Board of Supervisors transferred management of Descanso Gardens to the Department of Arboreta and Botanic Gardens. At this time an educational program was instituted and the admission fee to the gardens cancelled. Attendance increased from 74,589 in 1957-58 to 235,895 in 1958-59.

The addition of Descanso Gardens created two major divisions in the Department - the Los Angeles State and County Arboretum at Arcadia, and Descanso Gardens at La Canada. Each major division is composed in turn of organizational divisions. The functions and accomplishments during 1958-59 of the divisions in the Arboretum are discussed in Part II of this report. Those of Descanso Gardens' are discussed in Part III.

2. Construction played an important role during 1958-59 at Los Angeles State and County Arboretum with the building of the Administration Building Wing.

The wing was designed to conform with the style of the main administration building and adjoins it on the west. The wing houses the library and herbarium on the upper level, plus office space, while downstairs the lecture hall (50 ft. x 100 ft.) may be subdivided into as many as four class areas by sliding folding screens.

3. The Education program continued as one of the Department's outstanding public services. The new programs were in Children's Education and in the inauguration of classes for adults and children at Descanso Gardens. The entire program is discussed in Part II under the Research and Education Division and in Part III under the Education Division.

4. One of the most important aspects of the Department's functions lies in the field of research. The most significant research studies of 1958-59 dealt with the Slow Burning Plant Research, Oak Root Rot Research, the effect of "smog" on tissue cultures and tissues of intact plants, and the development or introduction of new species or hybrids. See Part II, Research and Education Division, for further details on the research program.

5. Several important gifts were received by the Department in 1958-59. These donations, as well as the research grants received, are invaluable to the Department's functions. They are discussed in Part IV, under the California Arboretum Foundation, Inc.

PART II. Activities of the Operating Divisions
at the
Los Angeles State and County Arboretum.

Administrative Division

Supervision Section

This section is responsible for the formulation of policy and direction of all departmental operations. The personnel in this section are the Arboretum Director, Arboretum Superintendent, Senior Administrative Assistant, and the Stenographic Secretary. The work of this section increased strikingly with the addition of Descanso Gardens.

Business Office Section

This section has the following major functions for the Department:

Prepares and maintains personnel and payroll records; prepares and requisitions for services, supplies, and equipment; maintains budget and accounting control; prepares work orders for construction and maintenance; prepares Annual Report; prepares the departmental budget request; and, operates the departmental personnel program.

This section, under direction of the Senior Administrative Assistant, absorbed the increased work load resulting from the Descanso Gardens transfer without undue difficulty. The transfer, effective July 1, 1958, was the reason for the striking budget increases shown in the table below.

	Budget <u>1957-58</u>	Budget <u>1958-59</u>
Maintenance and Operation	\$ 38,376	\$ 63,025
Salary and Wages	\$289,796	\$420,348
Budgeted Positions	67.9	99.7

Information Section

This section under the supervision of the Head, Arboretum Information, is charged with presenting information regarding the Arboretum to the public through such means as conducting special tours, operating the jeep train, maintaining the gate house, and answering numerous telephone inquiries.

During 1958-59, 372,952 visitors visited the Arboretum compared with 214,209 visitors for 1957-58 and 103,891 for 1956-57.

New installations and services have provided the public with increasing opportunities to see and learn more about the plantings and historical monuments. New directional and informational signs have been installed and an improved map of the grounds is given to help visitors locate points of interest. Continuous playing tape recorders have been installed in the historical building and other areas where recorded information can be of assistance to the public.

Janitorial Section

This section under the supervision of the Senior Administrative Assistant is composed of three janitors who together maintain over 41,462 sq. ft. of buildings on the Arboretum grounds.

During 1958-59 the work load of this section increased by 11,100 sq. ft. with the addition of the Administration Building Wing (10,400 sq. ft.) and the Restroom (700 sq. ft.) in the Historical Section. Total building area serviced for 56-57, 57-58, and 58-59, respectively was 18,500 sq. ft., 28,862 sq. ft., and 41,462 sq. ft.

Security Section

This section is responsible for the security of the Arboretum buildings and grounds during the period of time the grounds are closed. The Guards also answer emergency calls and meet emergency situations.

The number of buildings that the Guards protected during 1956-57, 1957-58, and 1958-59 was 11, 14, 21, respectively.

Research and Education Division

Education Section

This section is under the supervision of the Plant Physiologist. It is responsible for all educational programs conducted at the Arboretum and Descanso Gardens. The section has two primary divisions: Children's Education and Adult Education.

The Children's Education program, under the Arboretum Education Assistant, is in great public demand. More than four times as many pupils apply for classes as can be accommodated.

In addition to planning, securing supplies, and instructing at the Arboretum, the Education Assistant supervises the Education Program at Descanso Gardens. The Assistant also plans, contacts, and supervises graded school field trips to the Arboretum and Descanso Gardens by the Los Angeles City Schools, the Los Angeles County School District, and the San Gabriel Valley Schools.

The Adult Education classes grow in response to the public demands. Classes in Plant Identification, Landscaping, and Home Gardening are very popular.

Listed below are some of the significant achievements of the Education Program during 1958-59:

1. Adults attending one or more of the six Arboretum courses totalled approximately 540.
2. An Adult Education Program was initiated at Descanso Gardens. In the four courses offered, registration totaled 504.
3. To aid financially, some of the Adult Education classes are sponsored by the Arcadia High School Adult Education Office or the Office of Extended Day Education of Pasadena City College.
4. Two mimeographed brochures were prepared- one for adults and one for children. This aid to enrollment listed and described the courses and included a detachable registration form.
5. Children's Education classes flourished at the Arboretum and Descanso Gardens. There were twenty classes, having a combined registration of 250 children at the Arboretum. At Descanso, approximately 200 children enjoyed activities in thirteen classes.

6. The Guided Field Trip for the Elementary Grade Levels conducted at the Arboretum and Descanso Gardens are under the direction of the Children's Education Section. At Descanso, seventy-five field trips brought 1217 children to the gardens to learn about native plants and animals. At the Arboretum, two-hundred and eight trips allowed a unique learning experience for 7270 children. These Arboretum trips are divided into Historical, Native, and Plant Science. A majority of these children come from the Los Angeles School District, both County and City.
7. Recognition of Arbor Day, birthday of Luther Burbank in California, is carried on by the Education Section. In cooperation with various nationally known youth organizations, about 4,000 adults and children observed this special tree day at the Arboretum and Descanso Gardens.
8. Two Nature Trails have been developed at the Arboretum and one at Descanso for visitors who like to be independent of conducted tours. Trail literature is available to answer questions and guide the visitor from one point of interest to another.
9. In addition to the above activities, the Education Section has provided space and leaders for a nature class involving 'gifted' children; a Nature Workshop for the Los Angeles County Department of Parks and Recreation; a class in Plant Production from Long Beach State College; and several Teacher's Institutes.

Horticulture Section

This section, under the direct supervision of the Arboretum Director, is responsible for conducting research on introduction & development of new species or varieties of horticultural plants, the culture of ornamental plants, and disease and insect control.

Following are some of the research projects in progress during 1958-1959:

1. Introduction and testing of new trees and shrubs from foreign countries continued. This project will provide the County of Los Angeles and its home owners with new varieties of plants which are adapted to local climatic conditions for home and civic beautification. Accessions of seed and other plant material received during the year 1958-59 totaled 3,474. This is 405 more than the accessions for the year 1957-58. The accessions are expected to continue increasing through 1959-60. New foreign and domestic contacts have added many valuable and interesting plants to the Arboretum collection, which now totals approximately 9,000 species and varieties. During 1958-59, 8,985 individual plants were moved to permanent field locations. Commercial introductions made during the year were: seeds - Koelreuteria integrifolia and Melaleuca wilsonii; cuttings - Grevillea lanigera and Osteospermum fruticosum.
2. The slow burning plant research project, started in 1953, is being continued with the cooperation and assistance of the County Department of Forester and Fire Warden and the Forest Service, United States Department of Agriculture. Large destructive fires as the recent Angeles Crest and Laurel Canyon fires have demonstrated again the need for this project. A significant finding in 1958-59 was that species of Eriodictyon, Cistus, and Atriplex halimus, commonly known as "salt brush", grow quickly and vigorously under the influence of the moist air in the Santa Monica mountains. Cistus

species have been tested for slow burning qualities with gratifying results as the plant repeatedly resisted burning from a flame produced with propane gas. The following phases of this project will continue during 1959-60: leaf burning tests to determine fire resistance; seed germination studies; greenhouse and field growing tests; portable wind tunnel for field burning tests; and controlled field burning.

3. Continuance of observation and management practices of a number of grasses for lawns and turf. (In cooperation with the Los Angeles County Farm Advisor's Office)
4. The emphasis of the plant pathology research is on the Oak Root-Rot fungus (*Armillaria mellea*). This fungus is recognized as the Number One killer of ornamental plants in Los Angeles County. The research includes an evaluation of chemicals for soil application to control the disease; testing of desirable ornamental plants to determine relative susceptibility; a determination of the nature of resistance in those plants which are resistant; and a study of the physiology of parasitism through investigations on enzyme systems of pathogenic and non-pathogenic strains of the fungus.
5. Preparation of publications in the field of plant taxonomy. Two examples of publications being prepared by the Taxonomist, Dr. Leonid Enari, are "Key to Ornamental Shrubs of California" (A 65 page mimeograph of keys to various shrubs in California) and "Ornamental Shrubs of California".
6. Camellia research projects attempting to accelerate the growth and flowering of the plants include experiments on root pruning, day length, and treatment with gibberellic acid.
7. Continued observations on the development of new varieties and forms of both annual and perennial plants through hybridization and treatment with colchicine.

Library Section

The Library, under the supervision of the Arboretum Librarian, this year reached one of the goals which have been part of the Arboretum plan by occupying quarters of its own. Adequate housing for the horticultural and botanical collection is now possible in the newly completed wing of the Administration Building. In these new quarters the entire collection is together for the first time. The space is planned with a sizable well lighted reading area for those who use the library and has shelving sufficient to accomodate further growth. Provision also has been made for the staff to care for the material efficiently.

The library collection was begun by the California Arboretum Foundation, and supplemented by the gifts and purchases of individuals. Lately the purchase of books has been included in the Los Angeles County Arboretum budget. These purchases are augmented by further purchases and contributions from the Foundation. As a reference library it is available to public as well as the staff.

Orchid Section

This section, supervised by the orchid specialist, is responsible for the horticultural work required to initiate, develop, and maintain rare and unusual specimens of orchids and other herbaceous plants.

There are approximately 6,000 such plants in containers. They occupy

8,584 sq. ft. of glass and shade houses. The specimens include ferns, begonias, philodendrons, orchids, bromeliads, gesneriads, and anthuriums.

During fiscal year 1958-59 two additional completely automatic controlled aluminum greenhouses were donated by private funds. One is an 18' x 40' orchid house to grow species and botanical orchids from all parts of the world. The other is an 18' x 50' growing house for all begonia species for study & display.

During 1958-59, 1,241 orchid plants, valued at \$16,400.00 were donated to the Arboretum. These plants include species from Central and South America, and India, as well as divisions of representative hybrids which have received recognition in flower shows throughout the world.

Plant Identification Section

This section, under the supervision of the taxonomist, is responsible for the maintenance on the grounds of correctly identified plants, plant data and the new herbarium.

The maintenance of collections of correctly identified plants and complete and accurate plant data is a primary function of the Arboretum. The introduction of each new plant must be recorded and properly posted through its entire life span and period of observation and testing. It is estimated that under optimum conditions each of the 30,000 plants being observed need approximately two annual postings.

Accessions of seed and other plant material received during the year totaled 3,474 or 405 more than the accessions for the same period during the previous fiscal year. This figure of 3,474 brings the total accessions recorded since the inception of the Arboretum to a figure of 24,416. There are now approximately 9,000 species and varieties on the grounds.

Surplus seed and plants continue to be distributed to the various botanical gardens, arboreta, horticultural societies, nurseries, universities, State, County and City institutions as well as individuals for testing. A total of 2,320 packages of seed were prepared and distributed in 1958-59.

Continued research and experimentation is being carried on in an effort to arrive at the most economical, durable and readable plant display label for use on the grounds.

Meteorological data also is gathered by this section. Daily readings of temperatures and rainfall are forwarded monthly to the Los Angeles County Flood Control District from the Arboretum Weather Station No. 1037-E. A copy of each report is filed at the Arboretum Administration Office. The Arboretum Research Staff and the Los Angeles County Air-Pollution Research Unit stationed here at the Arboretum also use this weather information.

The lowest temperature, 31 deg. F., was recorded on November 17, 1958. The highest temperature reading was 108 deg. F. on October 16, 1958. During the fiscal year there were 17 days of 40 deg. F. or less; eight of these days were in February 1959. A temperature of 90 deg. F. or more was recorded on 78 days during the year; 12 of these days the temperature went to 100 deg. F. or more.

Rain was recorded on 22 days for a total fall of 12.16 inches. On 7 days only a trace was observed. The greatest monthly total fell in February 1959 (6.40 inches). The greatest daily total recorded was 2.80 inches on Feb. 16, '59.

Evaporation for the year measured 53.825 inches. As in previous years the greatest loss occurred during the hot dry months of July, August and September with an evaporation loss of 18.815.

Development Division

This division is responsible for the planting, culture, and maintenance of

all plants on the Arboretum grounds. In addition, it supervises and maintains test stations at Palmdale and Lux Arboretum in Monrovia for desert and lower mountain areas, and the new test station opened at Playa del Rey. This latter site will test plants exposed to fog, salt and wind along the Coast. These three test sites yielded valuable information on local conditions for plant growth. This is of particular value to local home owners.

The arboricultural maintenance program showed positive results at the Arboretum & at Descanso Gardens in the rejuvenation and health of hundreds of the older established oak trees. Out side participation in tree seminars & conferences has helped to bring all phases of Arboretum tree knowledge to many cities and counties.

The above are a few of the numerous public services performed by the Development Division during 1958-59. Following are the individual sections of this Division.

Supervision Section

The Chief Horticulturist is responsible for the planting and cultivation of the Arboretum grounds and exercises technical supervision over the gardening staff, Arborist, and nursery personnel. In addition, he supervises the operation of the Lux Arboretum, Palmdale Test Station, and the Harbors and Marina Test Station.

Arboriculture Section

This section is under the supervision of the Arborist. The section maintains all of the trees within the Arboretum grounds, Descanso Gardens, and the Lux Arboretum. The service includes trimming, topping, spraying, treatment and removal of trees. The workload of the section is cumulative and continues to increase as the trees mature. The 1958-59 workload was:

Trimmed approximately 726 trees on the Arboretum grounds and topped 160 trees for the health and welfare of the trees and safety of the public; removed 444 dead and dangerous trees from the grounds; chipped brush to prepare compost and avoid hauling to County dump; sprayed lagoon for control of cattails and tules; inspected 1006 oak trees for oak pests; sprayed approximately 3,269 trees for the control of oakmoth, oak twig girdler scale and aphids.

Maintenance Section

This section, supervised by a Senior Park Maintenance Man, is a basic operational unit of the Arboretum. It is responsible for providing high level professional care for the specialized plant collections. The water usage is directly correlated with grounds development and accordingly presented here to show the increase in the plantings.

Water Usage in Hundreds of Cubic Feet

Fiscal Year	52-53	53-54	54-55	55-56	56-57	57-58	58-59
Cubic Feet	8,334	15,096	25,674	33,811	53,580	59,433	65,682

Propagation Section

This section, supervised by the Plant Propagator, is responsible for propagation of all plants grown at the Arboretum from seeds, cuttings, or otherwise.

PART III. Activities of the Operating Divisions at Descanso Gardens

Administrative Division

This division, under the direct supervision of the Descanso Superintendent, is responsible for the implementation of policy for Descanso Gardens under the direction of the Arboreta and Botanic Gardens Director.

The Department of Arboreta and Botanic Gardens was requested by the County Supervisors to assume management of Descanso Gardens on July 1, 1958. A new educational program was instituted and admission charges were removed allowing free access to the gardens by the general public.

Descanso Gardens experienced the greatest growth period of its history during this year with 235,895 persons using the facilities, compared with 74,589 in the prior year. This marked increase was accommodated with no budgetary increase.

Special educational activities for the year included the Rose Pruning Demonstration - January 17th (3,100 persons); the Fourth Annual Camellia Show - February 28 to March 8th (51,524 persons); annual Iris Show - April 18th and 19th (5,000 persons); Pacific Rose Society Day - May 10th (3,500 persons); 12 art exhibits and 10 art demonstrations.

Two private citizens organizations were formed, important to the future of Descanso Gardens. The first was the Descanso Gardens Guild, whose objectives are to stimulate interest in horticultural and cultural activities. The second was the California Native Plant Committee - to function in an advisory capacity in the development of the California Native Plant Garden.

Education Division

This division, under the direct supervision of the Senior Arboretum Information Aid, is responsible for the presentation of information to the visitors. The Adult and Children's Education programs are also carried out by personnel of this division.

The new philosophy of operation was established with emphasis on education. The educational activities in horticulture and nature subjects during 1958-59 are here summarized:

There were 18 children's classes with a total enrollment of 251 children. Children enrolled resided in La Canada, Tujunga, Altadena, Pasadena, Sunland, La Crescenta, Van Nuys, and Montrose. 68 classes of children participated in field trips, numbering 3,450. Cities and communities represented were Los Angeles, La Canada, Eagle Rock, Culver City, San Fernando, Glendale, Panorama City, South Gate, Wilmington, Sherman Oaks, North Hollywood, and Long Beach. There were 75 organized youth group tours with 1,217 children participating.

An Arbor Day Ceremony was held with more than 900 children and adults in attendance; 3 tanbark oak trees were donated and planted by the local council of Campfire Girls.

A nature workshop was held for adult leaders of youth, sponsored by the Department of Parks and Recreation with enrollment of 30 attending 5 classes of 3 hours each. The Division's adult education section conducted 16 classes with 504 persons registered, a total attendance of 2,411. 90 adult groups toured the gardens totalling 3,600 persons.

This division developed the very popular nature trail for childrens use and operated the jeep-train transportation unit provided by the Southern California Camellia Council. The division also prepared identification labels and signs

Flower arrangements were maintained in the public buildings for public viewing and innumerable telephone calls and public inquiries also were handled

by the Information Section of the Division.

Attendance by fiscal years at Descanso Gardens has been: 1955-'56, 56,771; 1956-'57, 79,187; 1957-'58, 74,589; and 1958-'59, 235,895.

Development Division

This division, under the direct supervision of the Senior Arboretum Gardener, is the basic unit of Descanso Gardens, and is responsible for maintaining the specialized plant collections.

The general maintenance was improved with many additions to the plantings. More than 250 Camellia grafts were made, 72 new colonies of Cymbidium Orchids and 125 new Bird of Paradise (Strelitzia reginae) plants were established. A new section of the Rhododendron trail was opened with nearly 100 Rhododendron plants installed along with 150 hybrid Amaryllis and 200 Bilbergia. Bridges and foot paths along the Rhododendron trail were improved. 50 new Peony and 150 new eastern Lilacs (Syringa sp.) were planted. 500 rose cuttings were rooted and are growing for understock, 735 new Rose bushes were planted, all of which were donated by commercial firms. The Rose History Garden was mulched with 3 inches of shavings and the water system was converted to an overhead irrigation system. 105 flower display tables made of pipe, wood and plastic were constructed with volunteer labor by The Camellia Council. They were installed for use during the annual Camellia and Iris Shows. A Rose pruning demonstration was held in cooperation with the Pacific Rose Society. More than 18,000 cuttings were prepared and distributed. The Glendale Area Girl Scout Council, with more than 80 Senior Scouts participating assisted in the preparation & disposition of the cuttings. 250 flats of annual flowers were planted in the garden along with some 2,000 Begonias and 3,000 donated flowering bulbs.

The development of the California Native Plant Garden was begun with 582 kinds of plants being set-out & one acre of wild flowers planted; the seeds and plants were donated by Theodore Payne Nursery and Rancho Santa Ana Botanic Gardens. The California Native Plant Garden was dedicated on May 3, 1959. Senior Girl Scouts of the La Canada District assisted in caring for the wild flower area - they donated many hours in weeding and maintenance.

The necessary work in establishing the Native Plant Garden included clearing ten acres of brush and poison oak, grading and constructing approximately one mile of trail with appropriate stream crossings. Two hundred yards of ornamental stream bed was installed using a concrete base with 85 tons of native rocks which were donated and used for decorative purposes. Juvenile delinquent labor was used on the projects.

Numerous experiments were carried out by the maintenance section during the year, including extensive experimentation in the use of soil moisture gauges (tensiometers) to reduce irrigation costs. Much information was gained which has improved irrigation practices in the gardens. Experiments were made in weed control using "simazin", a weed control chemical in various concentrations.

Further experiments were made in plant nutrition with specific reference to Azaleas and Rose fertilization.

New chemicals were tested for mildew and fungus disease control in Roses with determination being made as to the most effective materials. They have been carried into regular use.

One valuable finding was a satisfactory rodent repellant. The effectiveness of this material now enables annuals and perennials to be grown which heretofore were impossible to grow because of repeated attacks by rabbits & other rodents.

PART IV. Activities of the Non-Profit Organizations.
Affiliated with the Department

The California Arboretum Foundation, Inc.

The California Arboretum Foundation is a non-profit organization incorporated under the laws of California on February 20, 1948, by a group of civic-minded men and women with the purpose of establishing and developing an Arboretum and Horticultural Center in sub-tropical southern California. This vision became a reality in the creation of the Los Angeles State and County Arboretum which is located on the home site (127 acres) of historic Rancho Santa Anita. On July 1, 1953 the Department of Arboreta & Botanic Gardens, Los Angeles County, assumed maintenance, operation and further development of the Arboretum. Since that time the Arboretum Foundation has devoted its efforts for the public's benefit to certain special projects -- historical, research, and educational -- for which public funds are not available.

The 1958-59 officers of the Board of Trustees of the Arboretum Foundation consisted of the following: Mr. Robert Casamajor, President; Mr. Ralph D. Cornell, First Vice-President; Mrs. John Mage, Second Vice-President; Mr. Howard A. Miller, Treasurer; and Mr. George H. Spalding, who is the Arboretum Superintendent, Secretary.

A major achievement of the Foundation through its Historical Committee, has been the restoration of the "Lucky" Baldwin Queen Anne Cottage and the adjacent Victoria Garden, solely through private financing. The Baldwin Coach Barn and the Hugo Reid Adobe of an earlier era are being architecturally restored with State funds. Furnishings for the Adobe will be provided by The Colonial Dames through private donations.

Extensive Herb Gardens have been financed through the Foundation by the Southern California Unit of the Herb Society of America. Three orchid houses for propagation and display are the gift of three generous benefactors. A collection of rare horticultural books has been provided for the Arboretum Library. Grants to support staff research in horticulture have been accepted by the Foundation and others are pending.

An important contribution will be a Fragrance Garden for the blind adjacent to a medicinal plant garden to be completed within a year. The four Demonstration Home Gardens near the entrance to the Foundation, created under joint sponsorship with Sunset Magazine, are a major achievement of the Foundation, designed to demonstrate new ideas in landscaping and materials possible for adaptation to the individual home owner's garden.

The Foundation is organized to offer memberships of varying classifications to individuals, garden clubs, plant societies, historical societies, and other sponsored groups and organizations interested in the Arboretum activities.

The following are the major donations, research grants, and miscellaneous services provided through the California Arboretum Foundation in 1958-59.

Donations:

1. Begonia Greenhouse. This important addition to the Arboretum grounds was obtained through the donations of the American Begonia Society. This is an 18 by 50 foot, automatically controlled aluminum growing house for study and display of all species of begonias. Contributions from the Elvinia J. Slossen Estate are intermittantly made toward maintenance of the greenhouse by the Begonia Society through the Foundation.

2. Garland Orchid Greenhouse. This donated aluminum greenhouse was completed and dedicated in May, 1959. It is an 18 by 40 foot orchid house that is completely automatic. It will house species and botanical orchids from all parts of the world.
3. Home Demonstration Gardens. This valuable addition to the Arboretum was reported fully in the 1957-58 Annual Report. The Arboretum Foundation and Sunset Magazine during 1958-59 continued to jointly provide funds for the Gardens to felicitate revisions and planting.
4. Mexican Tiles. These are a collection of unique and beautiful Mexican tile pictures which decorate the walls of the entrance to the Los Angeles State and County Arboretum's newest building, the recently completed Administration Building Wing. The subject matter is reminiscent of the early Spanish influence in the history of California & the Arboretum's own flock of peafowl. The tiles are valued at \$2,500.00.
5. Black Swans. A pair of beautiful black swans, valued at \$200.00, were donated by the Hollywood Park Racetrack in May, 1959. The swans have been placed in the lagoon bordering the Hugo Reid Adobe and Queen Anne Cottage.

Research Grants:

1. National Science Foundation Grant. This grant was received in November, 1958. It provides \$29,900 for a three year study on the attraction of certain insects to particular plants.
2. Public Health Service Grant of \$11,040.00 was received in September, 1958, for research on the effect of air pollutants on tissue growth.
3. Longwood Foundation Grant of \$8,860.00 supported research on the development of the "Flower Carpets".
4. Cymbidium Research Fund. This grant was received on June 30, 1959.

Miscellaneous Services:

1. Jeep Trains. The donations received from visitors who ride on the passenger jeep trains, which tour the Arboretum grounds every day except Monday, are used to maintain and replace the jeep trains. The trains perform a valuable service for the Arboretum visitors.
2. Queen Anne Cottage Garden. This garden was replanted in 1958-59 by the Garden Club of Pasadena.

Descanso Gardens Guild

The Descanso Gardens Guild was formed in January, 1958, to support Descanso Gardens as a Horticultural and cultural center. The Guild consists of over 300 members who are from wide areas of southern California. The President of the Guild is Mrs. Judge I. Smith and the Vice-President is Mrs. Frank Bunch. The Guild meets regularly and advises on the operation of the Descanso Gardens. The Guild annually holds a reception in the Hospitality House at Descanso Gardens for an outstanding horticulturist in Los Angeles County.

Descanso Gardens California Native
Plant Committee

The California Native Plant Committee came into being in July, 1958. The Committee's purpose is to perpetuate California Native Plants at Descanso Gardens and in other areas where ever possible. Committee Chairman is Mr. Conrad Fanton. Members are Mr. Arthur Barton, Mr. Percy Everett, Mr. Lee Haines, Mr. Theodore Payne, and Mr. Richard Droege.

Committee members donated over 130 hours of their own time to the planning and supervision of the development of the California Native Plant Garden at Descanso Gardens. In addition to this, Mr. Theodore Payne, International Authority on California native plants, gave 50 hours of his own time and 40 hours of one of his employee's time in the actual development of the Garden.

Mr. Payne also donated 175 pounds of wild flower seed, 900 flowering bulbs, 565 trees and shrubs in one gallon and five gallon containers to the California Native Plant Garden. The Rancho Santa Ana Botanic Gardens in Claremont, California, donated 140 trees and shrubs in one gallon containers to the Garden.

The California Native Plant Garden now extends to over five acres of area. All plants in the garden are donated (see above for some specific sources). The wild areas at Descanso Gardens have also been cleared so that trails run through displays of other native plants.

PART V. Financial Report 1958 - 59

Departmental Summary

	<u>Appropriation</u>	<u>Expenditure</u>	<u>Balance</u>
Salaries and Wages	\$420,740	\$447,014.01	\$(-26,274.01)
Maintenance & Operation			
Mechanical Service	9,180	9,784.07	(- 604.07)
Stores Service	35,520	34,807.39	712.61
All Other	16,270	12,651.20	3,618.80
Total M & O	<u>\$ 60,970</u>	<u>\$ 57,242.66</u>	<u>3,727.34</u>
Capital Outlay	10,020	8,952.66	1,067.34
Total Department	<u>\$491,730</u>	<u>\$513,209.33</u>	<u>\$(-21,479.33)</u>

Arboretum Summary

	<u>Appropriation</u>	<u>Expenditure</u>	<u>Balance</u>
Salaries and Wages	\$307,993	\$333,519.89	\$(-25,526.89)
Maintenance & Operation			
Mechanical Service	6,580	8,554.54	(-1,974.54)
Stores Service	24,935	23,926.14	1,008.86
All Other	9,165	8,409.65	755.35
Total M & O	<u>\$ 40,680</u>	<u>\$ 40,890.33</u>	<u>(- 210.33)</u>
Capital Outlay	6,525	5,548.35	976.65
Total Arboretum	<u>\$355,198</u>	<u>\$379,958.57</u>	<u>\$(-24,760.57)</u>

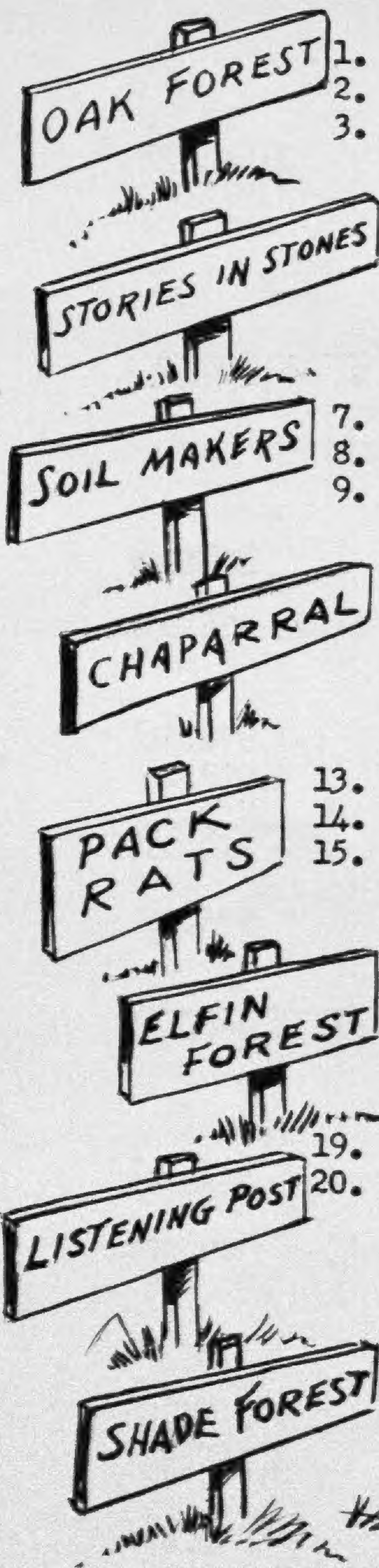
Descanso Summary

	<u>Appropriation</u>	<u>Expenditure</u>	<u>Balance</u>
Salaries and Wages	\$112,747	\$113,494.12	\$(- 747.12)
Maintenance & Operation			
Mechanical Service	2,600	1,229.53	1,370.47
Stores Service	10,585	10,881.25	(- 296.25)
All Other	7,105	4,241.55	2,863.45
Total M & O	<u>\$133,037</u>	<u>\$129,846.45</u>	<u>3,190.55</u>
Capital Outlay	3,495	3,404.31	90.69
Total Descanso	<u>\$136,532</u>	<u>\$133,250.76</u>	<u>\$ 3,281.24</u>

Construction of a self-guiding Nature Trail at Descanso Gardens was a significant development in the Children's Education program. The quiz below adds fun to this learning experience.

UPON REQUEST this quiz is available to Youth Leaders and Teachers for use with children.

Circle TRUE statements - which are based on information given on Trail Signs.

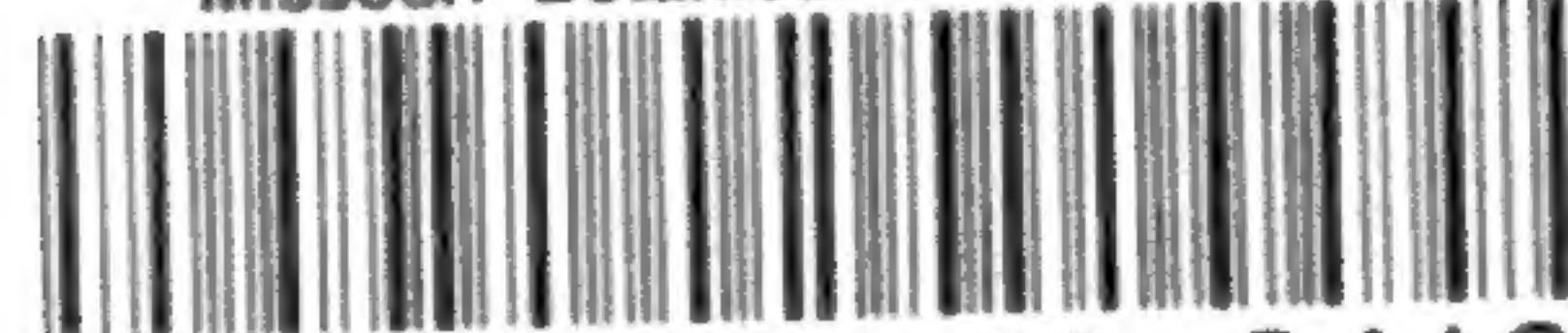


1. Live Oaks need a high ground water table.
2. These trees are 25 years old.
3. Live Oaks create a natural home for ferns and mosses.
4. Granite contains bits of broken glass.
5. These rocks were uncovered by rains.
6. Rocks helped to cut this canyon.
7. Nature makes soil quickly.
8. Fallen leaves help make topsoil.
9. Animals and worms help make topsoil.
10. California hillsides are covered with Chaparral.
11. Chaparral roots help prevent erosion.
12. The small leaves of Chaparral have a special purpose.
13. Make their homes of dead twigs and leaves.
14. Indians ate Pack Rats.
15. Pack Rats are not afraid of people.
16. The Elfin Forest grows fast.
17. The Elfin Forest is as old as the Oak Forest.
18. Fire is the great enemy of the Elfin Forest.
19. The Animals of the Chaparral come out at night.
20. Many kinds of birds live only in the Chaparral.
21. Camellias like to grow in the shade.
22. Camellias are natives of California.
23. Birds help the trees by eating insects.
24. Some birds make their homes only in the tops of trees.

FOLD UNDER ON DOTTED LINE

TRUE statements are: 1 - 3 - 5 - 6 - 8 - 9 - 10 - 11 - 12

13 - 14 - 17 - 18 - 19 - 20 - 21 - 23 - 24



Conducted field trips on the Horticultural, Natural Science, or Historical aspects of the Arboretum are available for the Elementary grades. During 1958-59, 208 trips were conducted at the Arboretum serving 7,270 children. In this photograph staff member Denis Kucera tells the story of the California Redwood tree to school children from Covina.



Conducted Nature Study trips at Descanso Gardens served 1,217 children arriving by school bus on 75 trips. Instructor Barbara Shotwell explains the fascinating interdependence of plants and animals to some future citizens.



View toward the north-east of the Arboretum Administration Building group. The new wing on the left houses the library, herbarium, and lecture hall.



The plaque above the door reads, "Begonia Greenhouse, donated by Mrs. Leonard B. Slosson and Branch Members of The American Begonia Society. Sponsored by The San Gabriel Valley Branch of The American Begonia Society. 1959."